

11. GYMNARCHUS.

Gymnarchus, Cuv. R. An. 2nd ed. ii. p. 357 (1829); Günth. Cat. vi. p. 225 (1866); Bouleng. Ann. Mus. Congo, Zool. i. 1898, p. 2.

Teeth forming a single complete series on the entire edge of both jaws (14 in the upper, 25-28 in the lower), with compressed, pointed or truncated crowns finely serrated on the sides; palate and tongue toothless; mouth wide, terminal. Nostrils far apart, remote from the eye. Body much elongate, the tail gradually attenuated into a filament. Dorsal occupying the whole length of the body; anal, ventral, and caudal fins absent. Vertebrae 114-120 (45-47 + 67-75). Air-bladder cellular, lung-like.

1. GYMNARCHUS NILOTICUS.

Rifaud, Voy. Égypte, pl. 138 bis (1830).

Gymnarchus niloticus, Cuv. l. c.; Ertl, Abh. Bayer. Ak. v. 1847, p. 209, pl. v.; Heckel, Denkschr. Ak. Wien, vi. 1854, p. 11, pl. i.; Hyrtl, Denkschr. Ak. Wien, xii. 1856, p. 1, pls. i-iv.; Günth. Cat. vi. p. 225 (1866); Steind. Sitzb. Ak. Wien, lxi. i. 1870, p. 556.

Depth of body 7 to $9\frac{1}{2}$ times in total length, length of head $5\frac{1}{3}$ to 6 times. Head 2 to $2\frac{1}{2}$ times as long as deep; snout rounded, scarcely projecting beyond the lower jaw; eye very small; a strong fold of the skin connects the opercles across the isthmus. Dorsal 183-210. Pectoral rounded, $\frac{1}{4}$ to $\frac{2}{3}$ length of head. Scales very small, largest along the middle of the side. Olive or brown above, whitish beneath.

Total length 800 millim.

Upper Nile, Senegal, Niger.

EXPLANATION OF PLATE LI.

Sciagraph of *Gnathonemus rhynchophorus*, p. 810.

5. A List of Butterflies obtained in the Harar Highlands by
Capt. H. G. C. Swayne, R.E. By ARTHUR G. BUTLER,
Ph.D., F.L.S., F.Z.S., &c.

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The small collection of which the following is an account was somewhat hurriedly made, all the specimens having been secured¹ in about three days, at an elevation of from 4000 to 8000 feet on the Harar Highlands. It is therefore not surprising that most of them are a good deal shattered; some of them are nevertheless very acceptable additions to the Museum collection: one species is new.

So little is known even now of the Lepidopterous fauna of this part of Africa that every consignment received thence is of importance and is worthy of careful record, even though many of the examples may have no further value when that record has been published.

¹ They do not appear to have been netted, but rather knocked down and captured by hand.

The following is a list of the species :—

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| 1. <i>Limnas klugi</i> <i>Butl.</i> | 15. <i>Acræa antinorii</i> <i>Oberth.</i> |
| 2. <i>Byblia ilithyia</i> <i>Drury.</i> | 16. <i>Mylothris agathina</i> <i>Cram.</i> |
| 3. <i>Charaxes brutus</i> <i>Cram.</i> | 17. " <i>yulei</i> ♂ var. ? <i>Butl.</i> |
| 4. <i>Junonia actia</i> <i>Dist.</i> | 18. " <i>swaynei</i> , sp. nov. |
| 5. " <i>octavia</i> <i>Cram.</i> | 19. <i>Colias electra</i> <i>Linn.</i> |
| 6. " <i>pyriformis</i> <i>Butl.</i> | 20. " <i>marnoana</i> <i>Rogenh.</i> |
| 7. " <i>cebrenæ</i> <i>Trim.</i> | 21. <i>Teracolus phillipsi</i> <i>Butl.</i> |
| 8. " <i>elelia</i> <i>Cram.</i> | 22. " <i>protomedia</i> <i>Klug.</i> |
| 9. " <i>here</i> <i>Lang.</i> | 23. <i>Belenois mesentina</i> <i>Cram.</i> |
| 10. " <i>orthosia</i> <i>Godt.</i> | 24. <i>Leuceronia thalassina</i> <i>Boisd.</i> |
| 11. <i>Pyrameis abyssinica</i> <i>Feld.</i> | 25. <i>Papilio demoleus</i> <i>Linn.</i> |
| 12. <i>Atella columbina</i> <i>Cram.</i> | 26. " <i>erinus</i> , var. <i>Gray.</i> |
| 13. <i>Neptis agatha</i> <i>Cram.</i> | 27. " <i>antinorii</i> <i>Oberth.</i> |
| 14. <i>Acræa serena</i> , var. <i>perrupta</i> <i>Butl.</i> | |

MYLOTHRIS SWAYNEI, sp. n.

♂. Intermediate in character between *M. trimenia* and *M. narcissus*: primaries above milk-white; the costal border blackish, widening gradually into an apical patch which curves round to join the first of three trigonal marginal spots between veins 4 and 5; internal border also blackish to external angle: secondaries bright lemon-yellow; seven small marginal black spots, the first of which (at end of costal vein) is the largest and elongated: body normal. Primaries below white, costal border sprinkled with grey scales; base of cell slightly washed with lemon-yellow; apical border lemon-yellow; a marginal series of seven black dots: secondaries as above; body normal, the pectus clothed with greenish-white hair, becoming somewhat fulvous at the side of the eyes. Expanse of wings 55 millim.

Hab. Harar Highlands.

The following specimens in the collection are worthy of mention :—

The example of *Charaxes brutus* is not only interesting on account of the narrowness of the white band across the primaries, but also because of the prominence of the grey lunulated sub-marginal line of the secondaries.

Acræa antinorii, of which two rather damaged specimens were obtained, was previously known to me only by the illustration (*Annali del Museo Civico di Genova*, xv. tav. i. fig. 3).

The male of *Mylothris yulei* more nearly approaches the typical female than the male which I described; but there is not sufficient evidence to warrant their separation at present.

The example of *Colias marnoana* is larger than those which we previously possessed and tends to link it to *C. sareptensis*.

The two males of *Papilio erinus* are actually more or less intermediate between the var. *pseudonireus* and *Papilio bromius*; it therefore seems probable that *P. erinus* and *P. bromius* will eventually have to be united, in spite of the considerable differences which exist on both surfaces between the extreme forms.

A pair, unfortunately much shattered, of *P. antinorii* was obtained.